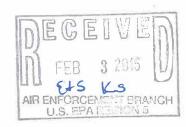


January 28, 2016

Phillip Brooks
Air Enforcement Division Director
U.S. Environmental Protection Agency
MC 2242A
1200 Pennsylvania Ave.
Washington, D.C. 20460

Object: Lafarge – U.S. EPA Consent Decree Semi-Annual Report for the Joppa, IL facility



Dear Mr. Brooks,

Pursuant to section XII (Reporting Requirements) paragraph 106 of the Consent Decree entered in the matter of the United States v Lafarge North America Inc., et al, please find herewith the semi-annual report covering the period from July 01 to December 31, 2016 for the Joppa, Illinois facility.

This report contains a table with daily production and mass emission data, as well as intensity rate data (lbs/ton of clinker). Except for the intensity rate, which Lafarge recognizes is necessary to demonstrate compliance with the emissions limits of this Consent Decree, the other daily data in the table would provide information regarding production and kiln capacity which Lafarge considers proprietary and should be treated as confidential business information.

Respectfully submitted,

Duane Cannon Environmental Manager

cc: per transmittal form attached

LAFARGE NORTH AMERICA INC. 2500 Portland Road Grand Chain, IL 62941 Office: (618) 543-3925 Fax: (618) 543-7413



# **DOCUMENT TRANSMITTAL**

2500 Portland Road Grand Chain, IL 62941 Tel: 618-543-3925

### LAFARGE - U.S. EPA CONSENT DECREE

**Date:** January 28, 2016

Affected Plant: Joppa, IL

Issued to:

U.S. EPA MC 2242A

1200 Pennsylvania Ave. NW Washington, D.C. 20460

Attention: Phillip Brooks

Distribution:

Name:	Copies:	Department/Agency/Company:	Location:
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Peter L. Keeley	Hard copy	Lafarge North America Inc.	Herndon, VA
Shaun Burke	E-Mail	U.S. EPA	Washington, D.C.
Robert Klepp	E-Mail	U.S. EPA	Washington, D.C.
Craig S. Campbell	E-Mail	Lafarge North America Inc.	Reston, VA
Steven C. Kohl	E-Mail	Warner, Norcross & Judd LLP	Southfield, MI
Michelle Ferguson	E-Mail	Lafarge North America Inc.	Bloomsdale, MO

### **DOCUMENTS**

DOCUMENT NO.

**DOCUMENT NAME** 

DOCUMENT DESCRIPTION

JPA-ALL-GEN-SA-036

JPA Jul-Dec 2015 Semi-Annual Report

Semi-Annual Report for Joppa – Jul 1- Dec 31, 2015



Plant:			
Joppa, Illinois			
Revision:	0		

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# LAFARGE - U.S. EPA Consent Decree Semi-Annual Report

Plant: Joppa Affected state: Illinois

Reporting period: Jul 1, 2015 to Dec 31, 2015

### **Table of Contents**

1.	Introduction	2
2.	Information required under Paragraph 106 of the Consent Decree	
	a. Progress of installation of Control Technologies	
	b. Progress of installation of CEMS	
	c. Temporary Cessation of Kiln Operation	
	d. CEMS data	
	e. Compliance with all applicable Demonstration-Phase Facility-Wide 12-Month Rolling Average Emission Limits.	
	f. Compliance with all applicable Facility-Wide 12-Month Rolling Average Emission Limits	
	g. Compliance with all applicable 30-Day Rolling Average Emission Limits	
	h. Compliance with all applicable 12-Month Rolling Tonnage Limits	
	i. Compliance with the Appendix of the Consent Decree	
	j. Compliance with any applicable 30-Day Rolling Average Emission Limits established under the Appendix of the Consent Decree	4
	k. Status of the election made pursuant to Section VIII	
	I. Status of actions undertaken pursuant to Section IX	
	m. Status of permit applications and any proposed SIP revisions	
	n. Status of any operation and maintenance work	
3.	Description of non-compliance	6
4.	Certification	6
Ap	pendix A: CEMS Data for each Kiln	7
Ap	pendix B: Facility-wide 12-month rolling tonnage calculations	14

Pre par edb y.	Duane Cannon	Dat e:	Jan 26, 2016	Page	1	of	15
File name: JPA Jul-Dec 2015 Semi-Annual Report.docx			Document number:	JPA-ALL-GI	EN-SA-	036	



Plant:			
Joppa, Illinois			
Revision:	0		

#### 1. Introduction

Pursuant to the terms of the Consent Decree between the Lafarge Companies, the United States and certain Affected States, several of Lafarge's U.S. cement plants are required to implement various control technologies on certain kilns in order to reduce sulfur dioxide (SO<sub>2</sub>) and/or nitrogen oxide (NO<sub>x</sub>) emissions.

A requirement of the Consent Decree is the submittal of a report after the end of each half calendar year. This document is the semi-annual report covering the period between July 1, 2015 and December 31, 2015 for the Joppa, Illinois plant under Section XII Paragraph 106 of the Consent Decree.

The structure of this document follows the requirements specified in the Consent Decree.

### 2. Information required under Paragraph 106 of the Consent Decree

The italicized text in this document are excerpts from the Consent Decree.

### a. Progress of installation of Control Technologies

"Identify any and all dates on which the Lafarge Companies have installed, or describe the progress of installation of, each Control Technology required under Section V (NO<sub>x</sub> Control Technology, Emission Limits, Tonnage Limits and Monitoring Requirements) and Section VI (SO<sub>2</sub> Control Technology, Emission Limits, Tonnage Limits and Monitoring Requirements), and describe any problems encountered or anticipated during such installation, together with implemented or proposed solutions"

Kiln	C.T.	Date of Installation	Progress of Installation	Problems Encountered	Implemented or Proposed Solutions
K1	SCR	Installed	Completed, operational as of July 31,2013	None	n/a

### b. Progress of installation of CEMS

"Identify any and all dates on which the Lafarge Companies have completed installation of, or describe the progress of installation of, each CEMS required under Section V.B (NO<sub>x</sub> Continuous Emission Monitoring Systems) and Section VI.B (SO<sub>2</sub> Continuous Emission Monitoring Systems), and describe any problems encountered or anticipated during such installation, together with implemented or proposed solutions"

Kiln CEMS	Date of Installation	Progress of Installation	Problems Encountered	Implemented or Proposed Solutions
K1	SO <sub>2</sub> July 1998 NO <sub>x</sub> Dec 2001	In operation since installation	None	N/A

Prepared by:	Duane Cannon	Date:	Jan 26, 2016	Page	2	of	15
File name: JPA Jul-Dec 2015 Semi-Annual Report.docx			Document number:	JPA-ALL-G	EN-SA-	036	



Pla	
Joppa,	Illinois
Revision:	0

### c. Temporary Cessation of Kiln Operation

"Identify any and all dates on which the Lafarge Companies Temporarily Ceased Kiln Operation pursuant to Section VII (Temporary Cessation of Kiln Operation)"

During the period covered by this report none of the Joppa, Illinois kilns subject to this Consent Decree have been subject to Temporary Cessation.

### d. CEMS data

"Provide all CEMS data collected for each Kiln, including an explanation of any periods of CEMs downtime together with any missing data for which the Lafarge Companies applied missing data substitution procedures, under Section V.B (NO<sub>x</sub> Continuous Emission Monitoring Systems) and Section VI.B (SO<sub>2</sub> Continuous Emission Monitoring Systems)"

CEMS data collected for each kiln are in Appendix A of this document.

# e. Compliance with all applicable Demonstration-Phase Facility-Wide 12-Month Rolling Average Emission Limits

"Demonstrate compliance with all applicable Demonstration-Phase Facility-Wide 12-Month Rolling Average Emission Limits in Section V (NO<sub>x</sub> Control Technology, Emission Limits, Tonnage Limits and Monitoring Requirements) and Section VI (SO<sub>2</sub> Control Technology, Emission Limits, Tonnage Limits, and Monitoring Requirements) of the Consent Decree"

The Joppa, Illinois plant is not subject to a 12-Month rolling average emission limit per the Consent Decree.

### f. Compliance with all applicable Facility-Wide 12-Month Rolling Average Emission Limits

"Demonstrate compliance with all applicable Facility-Wide 12-Month Rolling Average Emission Limits in Section V (NO<sub>x</sub> Control Technology, Emission Limits, Tonnage Limits and Monitoring Requirements) and Section VI (SO<sub>2</sub> Control Technology, Emission Limits, Tonnage Limits, and Monitoring Requirements) of the Consent Decree"

The Joppa, Illinois plant is not subject to a 12-Month rolling average emission limit per the Consent Decree.

### g. Compliance with all applicable 30-Day Rolling Average Emission Limits

"Demonstrate compliance with all applicable 30-Day Rolling Average Emission Limits of this Consent Decree, including but not limited to those in Sections V (NO<sub>x</sub> Control Technology, Emission Limits and Monitoring Requirements) and VI (SO<sub>2</sub> Control Technology, Emission Limits and Monitoring Requirements) of this Consent Decree"

The Joppa, Illinois facility is not subject to a 30-day rolling average emission limit besides the Kiln 1 NOx limit established under the Appendix of the Consent Decree and reported in paragraph 2.j below.

Pre pared by:	Duane Cannon	Date:	Jan 26, 2016	Page	3	of	15
File name: JPA Ju	ıl-Dec 2015 Semi-Annual Repor	t.docx	Document number:	JPA-ALL-GI	EN-SA-	036	



Plant: Joppa, Illinois		
Revision:	0	

### h. Compliance with all applicable 12-Month Rolling Tonnage Limits

"Demonstrate compliance with all applicable 12-Month Rolling Tonnage Limits under Sections V (NO $_{\rm x}$  Control Technology, Emission Limits, Tonnage Limits, and Monitoring Requirements) and VI (SO2 Control Technology, Emission Limits, Tonnage Limits, and Monitoring Requirements)"

Based on the CEMS data supplied in Appendix B compliance was achieved throughout the period as demonstrated by the maximum actual Facility-wide 12-month rolling tonnages listed in the table below:

	NO <sub>x</sub>		S	6O <sub>2</sub>
	Facility-wide 12- month rolling tonnage limit	Maximum actual Facility-wide 12-month rolling tonnage for the reported period	Facility-wide 12- month rolling tonnage limit	Maximum actual Facility-wide 12-month rolling tonnage for the reported period
K1-K2	3,500 tons	744 tons	1,757 tons	339 tons

Detailed data can be found in Appendix B.

### i. Compliance with the Appendix of the Consent Decree

"Provide a complete description and status of all actions the Lafarge Companies have undertaken to comply with the Appendix of this Consent Decree"

Joppa K1 SCR	Submitted/ Started on:	Approved/ Completed on:	Status Approved No comments received	
Design Report	Oct 27, 2010	July 25, 2011		
Baseline Data collection Report	Feb 13, 2013	Mar 30, 2013		
Optimization Protocol	Feb 14, 2013	Apr 1, 2013	Approved	
Optimization Period	July 31,2013	Dec 17, 2013	Completed	
Optimization Report	July 16, 2014	Mar 20, 2014	Approved	
Demonstration Period	March 22, 2014	Feb 28, 2015	Completed	
Final Report	April 23, 2015	Sep 10, 2015	Approved	

# j. Compliance with any applicable 30-Day Rolling Average Emission Limits established under the Appendix of the Consent Decree

"Demonstrate compliance with any applicable 30-Day Rolling Average Emission Limits established under the Appendix of this Consent Decree"

The approval of the Final Demonstration Report establishing a 30-day rolling average limit for Kiln 1 NOx was received by the Lafarge Companies on the date identified in paragraph 2.i above.

Based on the CEMS data supplied in Appendix A and in accordance with paragraph 35 of the Consent Decree, compliance was achieved throughout the period as demonstrated by the maximum actual 30-day rolling average for Kiln 1 NOx listed in the table below:

Prepared by:	Duane Cannon	Date:	Jan 26, 2016	Page	4	of	15
File name: JPA Ju	-Dec 2015 Semi-Annual Report.do	ocx	Document number: JPA-ALL-GEN-SA-036				



Pla	int:	
Joppa,	Illinois	
Revision:	0	

	N	IO <sub>x</sub>
	30-day rolling average emission limit	Maximum actual 30-day rolling average for the reported period
K1	3.21 lb/ton	3.02 lb/ton

Detailed data can be found in Appendix A.

### k. Status of the election made pursuant to Section VIII

"Describe the status of the election made pursuant to Section VIII (Election to Retire and Replace Kilns) of this Consent Decree"

Section VIII of the Consent Decree is not applicable to the Joppa, Illinois plant.

### I. Status of actions undertaken pursuant to Section IX

"If applicable, describe the status of actions undertaken pursuant to Section IX Prohibition on Netting Credits or Offsets from Required Controls of this Consent Decree"

Section IX of the Consent Decree is not applicable to the Joppa, Illinois plant for the period covered by this report.

### m. Status of permit applications and any proposed SIP revisions

"Describe the status of permit applications and any proposed SIP revisions required under this Consent Decree"

	Application submitted on:	Approved on:	Status
SCR Construction Permit Application	Jun 19, 2012	Sep 27, 2012	Permit 12060038 issued
Permit to incorporate 30 day average rolling limit	Oct 22, 2015	Dec 08, 2015	Permit 12060038 amended
Proposed SIP revision	None submitted	n/a	n/a

### n. Status of any operation and maintenance work

"Describe the status of any operation and maintenance work relating to activities required under this Consent Decree"

Routine maintenance inspections of the control technology equipment are carried out periodically. A maintenance program has been developed based on available vendors' recommendations.

Prepared by:	Duane Cannon	Date:	Jan 26, 2016	Page	5	of	15
File name: JPA Jul-Dec 2015 Semi-Annual Report.docx		Document number: JPA-ALL-GEN-SA-036					



Plant: Joppa, Illinois				
Revision:	0			

### 3. Description of non-compliance

"The semi-annual report shall also include a description of any non-compliance requirements of this Consent Decree and an explanation of the violation's likely cause and of the remedial steps taken, or to be taken, to prevent or minimize such violation"

No non-compliance has been observed during the period covered by this report.

### 4. Certification

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Signature: Allfill	Date: 1/29/16
Name (Print): Michael Klenk	Position: Plant Manager



Pla	int:
Joppa,	Illinois
Revision:	0

Appendix A: CEMS Data for each Kiln

Prepared by:	Duane Cannon	Date:	Jan 26, 2016	Page	7	of	15
File name: JPA Jul-Dec 2015 Semi-Annual Report.docx			Document number: JPA-ALL-GFN-SA-036				



Plant:
Joppa, Illinois
Revision: 0

U.S. EPA Consent Decree Semi-Annual Report CEMS Data

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Business Information

Joppa Hinois

Data collection period: Submittal date: 01 Jul 2015 - 31 Dec 2015 26 January 2016

Days in		Kiln (clinker)		Stack NO <sub>x</sub>		Stack			Malfunction documentation		Data gap documentation
eporting	Dotte	production (*)	Mass (*)	Intensity	30-d RA	Mass (*)	Intensity	CEMS	F		
period	Date	[ton/d]	[lb/d]	[lb/lon KK]	[lb/ton KK]	[lb/d] Non-Responsive		incident type	Explanation	Missing data	Explanation
2	2015.07.01 2015.07.02	Non-Res	ponsive	3.07 2.68	_	Non-Responsive	3,50 2,47				ł.
3	2015.07.02	Non-Res	ponsive	2.73	_	Non-Responsive	0.90				ľ
4	2015.07.04	Non-Poc	noneive		_	Non-Responsive					
5	2015.07.05	MOLIFICES	housive	3.29 3.24	=	Non-Responsive	2,46 0.63				
6	2015.07.06	Non-Res	ponsive	2.06		Non-Responsive	2.51				
7	2015.07.07	Non-Res	nonsive	3.97	_	Non-Responsive					
8	2015.07.08	Non Dee	POHSIVO	3.27	_	Non-Responsive	4.20 3.72				
9	2015.07.09	Non-Res	ponsive	2.36		Non-Responsive					ľ
10	2015.07.09	Non-Res	ponsive	2.30		Non-Responsive	2.67				
11	2015.07.11	Non Doo	n an aive	1.83	=	Non-Responsive	1.37 2.46				
12	2015.07.11	Non-Res	ponsive	1.70		Non-Responsive	0.70				l'
13	2015.07.12	Non-Res	ponsive	2.92	=	Non-Responsive	1.99			1	
14	2015.07.14	Non-Poc	noneive	3.61		Non-Responsive	3.82				1
15	2015.07.15	MOLIFICES	housive	3.28		Non-Responsive	2.42				
16	2015.07.16	Non-Res	ponsive	3.26	=	Non-Responsive	2.42				
17	2015.07.17	Non-Res	nonsive	2.84		Non-Responsive	1.56				I .
18	2015.07.18	Non Dee	portoive	2.53		Non-Responsive	0.65				
19	2015.07.18	Non-Kes	bousive	2.53		Non-Responsive	0.72				
20	2015.07.20	Non-Res	ponsive	3.02	=	Non-Responsive	0.72				
21	2015.07.20	Non-Pec	noneivo	2.37		Non-Responsive Non-Responsive	1.70				
22	2015.07.22	NOHENES	ponsive	2.37	=	Non-Responsive	2.44				
23	2015.07.23	Non-Res	ponsive	6.07		Non-Responsive Non-Responsive	2.05	!			
24	2015.07.24	Non-Ree	noneive	5.31		Non-Responsive	1.40				
25	2015.07.25	NOITE	bousise	2.82		Non-Responsive	4.07			1	
26	2015,07,26	Non-Res	ponsive	2.63		Non-Responsive	2.00			1	
27		Non-Res	ponsive			Non-Responsive	2.00			1	
28	2015.07.27	Mars Doo		3.22	-	Non-Responsive				1	
29	2015.07.28	Non-Res	ponsive	2.84 N/A	-	Non-Responsive	2.69				Land Control of the C
30	2015.07.29 2015.07.30	Non-Res	ponsive	N/A N/A	_		N/A	1		All data	Kiln was down
31		Non Boo	ponoivo		_		V/A	1		All data	Kiln was down
	2015.07.31	Non-Res	ponsive	N/A N/A	_		V/A			All date	Kiln was down
32	2015 08,01	Non-Res	ponsive	47.	_		N/A			All data	Kiln was down
33	2015.08 02	Non-Pos	noneive	N/A			WA AW	1		All data	Kiln was down
34	2015.08.03	NOH-IXES	housive	N/A	_		W/A			All data	Kiln was down
35	2015.08.04	Non-Res	ponsive	N/A	_		N/A			All data	Kiln was down
36	2015.08.05	Non-Res	ponsive	N/A	_		WA			All data	Kiln was down
37	2015.08.05	Mars Doo		N/A	_		WA AW			All data	Klin was down
38	2015.08.07	Non-Res	ponsive	N/A	_		N/A			All data	Kiln was down
39	2015.08.08	Non-Res	ponsive	N/A	_		N/A			All data	Kiln was down
40	2015.08.09	Non Poo	noncive	N/A	-		WA			All data	Kiln was down
41	2015.08 10	NOH-KES	housive	N/A	_		N/A			All data	Kiin was down
42	2015.08.11	Non-Res	ponsive	N/A	_		N/A			All data	Kiln was down
43	2015 08.12	Non-Res	nonsive	N/A			V/A	1		All data	Kiln was down
44	2015.08.13	Non-Res	Porioive	N/A	_		WA.	- 1		All data	Kiln was down
45	2015 08.14	Non-Res	ponsive	N/A	_		N/A			All dala	Kiln was down
46	2015.08 15	Non-Res	ponsive	/A	_		N/A	- 1		All data	Kiln was down
47	2015.08.16	Mon Doo	noncire	N/A	_		AV.	- 1		All data	Kiln was down
48	2015.08.17	Non-Kes	bousive	N/A	_	Non-Responsive	VA			All data	Kiln was down
49	2015.08.18	Non-Res	ponsive	N/A	- 1	Non-Responsive	/A			All data	Kiln was down
50	2015.08.19	Non-Pos	noneivo	N/A	_	Non-Responsive	V/A	1		All date	Kiln was down
51	2015 08,20	MOHEIVES	housive	N/A	_	Non-Responsive	/A	I		All data	Kiln was down
52	2015.08.21	Non-Res	ponsive	/A	_	Non-Responsive	/A			All data	Kitn was down
53	2015 08.22	Non-Res	nonsive	/A	_	Non-Responsive	/A			All data	Kiln was down
54	2015.08.23	Non-Kes	Polisive	/A	- 1	Non-Responsive	V/A			All data	Kiln was down
55	2015 08 24	Non-Res	ponsive	/A	_	Non-Responsive	/A	- 1		All data	Kiln was down
56	2015.08.25	Non-Res	ponsive	/A	_	Non-Responsive	/A			All data	Kiln was down
57	2015.08.26	Non De-		N/A			WA.			All data	Kiln was down
58	2015.08.27	Non-Res	ponsive	/A	_	Non-Responsive	V/A			All data	Kiln was down
59	2015.08.28	Non-Res	ponsive	N/A	_	Non-Responsive	/A			All data	Kiin was down
60	2015.08 29	Non Poo	noncive	N/A	- 1		VA			All data	Kiln was down
61 62	2015,08.30	MOII-KES	housive	/A	_		VA	- 1		All data	Kiln was down
	2015 08.31	Non Poo	ponsive	/A		Non-Responsive	VA			All data	Kiln was down

Prepared by:	Duane Cannon	Date:	Jan 26, 2016	Page	8	of	15
File name: JPA Jul-Dec 2015 Semi-Annual Report.docx			Document number: JPA-ALL-GEN-SA-036				



Plant:
Joppa, Illinois
Revision: 0

U.S. EPA Consent Decree Semi-Annual Report CEMS Data

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Joppa Ilinois
K1

Data collection period: Submittal date: 01 Jul 2015 - 31 Dec 2015 25 January 2016

Days in		Kiln (clinker)	190	Stack NO <sub>x</sub>		Stack	SO <sub>2</sub>	1 5	Malfunction documentation		Data gap documentation
porting		production (*)		Intensity	30-d RA	Mass (*)	Intensity	CEMS			
period	Date	[ton/d]		[lb/ton KK]	[lb/lon KK]			incident type	Explanation	Missing data	Explanation
63	2015.09.01	Non-Res		I/A	-		I/A			All data	Kiln was down
64	2015,09.02	Non-Res		I/A	_		I/A			All data	Kiin was down
65	2015.09.03	Non Roo		I/A	_		l/A			All data	Kiln was down
66	2015.09.04	Non-Res		I/A	-		I/A			All data	Kiln was down
67	2015 09.05	Non-Res		I/A	_		I/A			All data	Kiln was down
68	2015.09.06	Non-Res	noncivo	I/A	_		I/A	1		All data	Kiln was down
69	2015.09.07	Non Roo		I/A	_		I/A			All data	Kiln was down
70	2015.09.08	Non-Res		I/A	_		I/A			All data	Kiln was down
71	2015.09.09	Non-Res		I/A	_		I/A	1		All data	Kiln was down
72 73	2015.09.10	Non-Res		I/A	_		I/A			All data	Kiln was down
	2015,09.11	Non-Res		I/A	_		I/A		U	All data	Kiln was down
74	2015.09.12	Non-Res		I/A			I/A			All data	Kiln was down
75	2015.09.13	Non-Res		I/A	_		VA VA			All data	Kiln was down
76	2015.09.14	Non-Res	10 0 10 0 II ( 0 I	I/A	_					All deta	Kiin was down
77	2015.09.15	Non-IXes		I/A	_		I/A			All data	Kiln was down
78	2015.09.16	Non-Res		I/A			VA.			All data	Klin was down
79	2015.09.17	Non-Res		I/A	_		VA.			All data	Kiln was down
80	2015 09.18	Non Pos		I/A	_		I/A			All data	Kiln was down
81	2015.09.19	Non-Res		/A	_		I/A			All dala	Kiln was down
82	2015 09.20	Non-Res		/A	_		I/A			All data	Kiln was down
83	2015.09.21	Non-Res		/A			I/A	1		All data	Kiln was down
84	2015.09 22	Non Rec		I/A			I/A			All data	Kiln was down
85	2015,09.23	Non-Res		I/A	_ ,		/A	1		All data	Kiln was down
86	2015.09.24	Non-Res		/A	_ 1		I/A	10		All data	Kiin was down
87	2015.09.25	Non-Res		VA.	_		I/A			All data	Kiln was down
88	2015.09.25	Non-Res		/A			ľΑ			All data	Kitn was down
89	2015.09.27	Non-Res		/A			I/A			All data	Kiin was down
90	2015,09.28	Non-Res		/A			I/A			All data	Kiln was down
91	2015.09.29	Non-Pos		/A			I/A			All data	Kiln was down
92	2015,09,30	Non-IXes		/A	_		/A			All data	Kiln was down
93	2015 10,01	Non-Res		/A	_		ľΑ			All data	Kiln was down
94	2015.10.02	Non-Res		/A	_		ľΑ			All data	Kiln was down
95	2015.10.03	Non Doo		/A			/A			All data	Kiln was down
96	2015 10.04	Non-Res	ponsive	/A	_	Non-Responsive	/A	l' li			
97	2015,10,05	Non-Res	ponsive	0.27	_	Non-Responsive	32.41			1	
98	2015.10.06	Non-Res	nonsive	0.94	_	Non-Responsive	1.31			1	
99	2015.10 07	Non Ros	ponsive	0.42	_	Non-Responsive	0.00				
100	2015,10.08	Non-Res	ponsive		_		VA.			All data	Kiln was down
101	2015.10.09	Non-Res	ponsive <sup>N</sup>		_		VA.	0 9		All data	Kiln was down
102	2015,10.10	Non-Res	ponsive <sup>N</sup>		_	Non-Responsive	/A				
103	2015.10.11	Name D	POHOIVE	8.60	_	Non-Responsive	19.12			All data	Kıln was down
104	2015.10.12	Non-Res	ponsive	6.49	_	Non-Responsive	1.84	Mallunction	Unsuccessful calibration - 4 hrs	Multiple data	Part 75 applied
105	2015.10.13	Non-Res	ponsive	5.03		Non-Responsive	3.60				
106	2015.10.14	Non-Pos	poneive	2.63	_	Non-Responsive	2.09				
107	2015.10.15	Non-Res	housive	1.22	_	Non-Responsive	1.34	1			1
108	2015.10.16	Non-Res	ponsive	1.79	_	Non-Responsive	0.29				
109	2015.10.17	Non-Res	ponsive	2.47	_	Non-Responsive	0.01	Malfunction	Unsuccessful calibration - 6 hrs	Stack SO2	Part 75 applied
110	2015.10.18	Non Dos	pondive	2.10	_	Non-Responsive	0.00				
111	2015 10.19	NUIT-RES	housive	2.15		Non-Responsive	0.22				
112	2015.10.20	Non-Res	ponsive	1.56	_	Non-Responsive	0.87				
113	2015.10.21	Non-Res	nonsive	1.58	_	Non-Responsive	2.73	1			
114	2015.10.22	Non De-	Poriore	2.04	_	Non-Responsive	0.58				
115	2015.10.23	Non-Res	ponsive	1.04	_	Non-Responsive	2.57				
116	2015,10.24	Non-Res	ponsive	3.76	_	Non-Responsive	1.35				
117	2015.10.25	Non-Ros	noneivo	2.38	_	Non-Responsive	0.57				1
118	2015.10.26	MOITINGS	Polisive	1.70	_	Non-Responsive	1.53				
119	2015.10.27	Non-Res	ponsive	2.28	_	Non-Responsive	0.56				1
120	2015 10.28	Non-Res	ponsive	2.74	_	Non-Responsive	1.40				
121	2015 10.29	Non De	pondivo	2.78		Non-Responsive	1.51				
122	2015.10,30	Non-Res	ponsive	5.38	_	Non-Responsive	1.56				
123	2015.10 31	Non-Res	ponsive	2.32	_	Non-Responsive	5.80				
124	2015 11.01	Mon Doo	noncivo	1.85		Non-Responsive	1.28				1

Prepared by:	Duane Cannon	Date:	Jan 26, 2016	Page	9	of	15
File name: JPA J	ul-Dec 2015 Semi-Annual Report.d	Document number: JPA-ALL-GEN-SA-036					



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Revision:

0

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Data collection period: Submittal date: 01 Jul 2015 - 31 Dec 2015 26 January 2016

126 127 128 129 130	Date 2015.11.02 2015.11 03 2015.11 04	Kiln (clinker) production (*) [ton/d] Non-Resp	Mass (*) [lb/d]	Stack NO <sub>x</sub> Intensity [Ib/ton KK]	30-d RA	Stack Mass (*)	Intensity	CEMS	Malfunction documentation		Data gap documentation
period 125 126 127 128 129 130	2015.11.02 2015.11.03 2015.11.04										
126 127 128 129 130	2015.11 03 2015 11 04	Non-Resp		HOMOH KK	[lb/ton KK]	[lb/d]	[lb/ton KK]	incident type	Explanation	Missing data	Explanation
127 128 129 130	2015 11 04		onsive	1.62		Non-Responsive	3.72	-			
128 129 130		Non-Resn	onsive	2.20		Non-Responsive	1.61				
129 130		Non Roop	onsive	1.74		Non-Responsive	1.27				
130	2015.11.05	Non-Resp	onsive	2.15	2.38	Non-Responsive Non-Responsive	2.40				
	2015 11.06	Non-Resp	onsive	2.81	2.39	Non-Responsive Non-Responsive	2.84				
	2015.11.07	Non-Resp	onsive	2.45 2.48	2.40 2.44	Non-Responsive	9.76 3.27				
	2015.11.08	Non-Resh	onsive	2.40	2.44	Non-Responsive	2.45				
	2015.11.10	Non Roce	oncivo	2.95	2.48	Non-Responsive	5.75				
	2015.11.11	Non-Resp	JUHSIVE	4.96	2.46	Non-Responsive Non-Responsive	0.49			1	
	2015.11.12	Non-Resp	onsive	3.32	2.42	Non-Responsive Non-Responsive	2.96			1	
	2015.11.13	Non-Resp	onsive	3.19	2.44	Non-Responsive	6.49				
	2015,11.14	Non-Resp	onsive	1.49	2.45	Non-Responsive	0.31	Malfunction	Monitor equipment malfunction - 2hrs	Stack SO2	Part 75 applied
	2015.11.15	Non-Resn	onsive	0,66	2.41	Non-Responsive	0.81				
	2015 11.16	Non Roop	onsivo	1.18	2.36	Non-Responsive Non-Responsive	3.81				
	2015.11.17	Non-Resp	onsive	2,95	2.39	Non-Responsive Non-Responsive	2.98 4.11		1		
	2015 11.18	Non-Resp	onsive	1.86 2.69	2.38	Non-Responsive	2.98				
	2015.11.19	Non-Resp	onsive	5.51	2.51	Non-Responsive	1.69				
	2015.11.21	Non-Resp	onsive	2.05	2.51	Non-Responsive	4.05				
	2015,11,22	Non-Poer	oneivo	4.38	2.64	Non-Responsive Non-Responsive	2.66	1			
	2015.11.23	Non-Resp	onoive	4.89	2.68	Non-Responsive Non-Responsive	2.88				
	2015,11.24	Non-Resp	onsive	3.90	2.74	Non-Responsive	0.06	Malfunction	Monitor equipment malfunction - 1 hr	Multiple data	Part 75 applied
	2015 11.25	Non-Resp	onsive	2.06	2.75	Non-Responsive	1.32				
	2015 11.26	Non-Resp	onsive	2.28	2.75	Non-Responsive	0.00				
	2015.11.27 2015.11.28	Non-Resn	onsive	1.70 3.14	2.71 2.73	Non-Responsive Non-Responsive	0.00 0.14				
	2015.11.29	Non Roop	onsivo	2.70	2.64	Non-Responsive Non-Responsive	1.43				
	2015,11,30	Non-Resp	onsive	2.26	2.65	Non-Responsive	0.22				
	2015.12.01	Non-Resp	onsive	12.11	2.69	Non-Responsive	8,64				
	2015.12.02	Non-Resp	onsive	5.35	2.77	Non-Responsive		Malfunction	DAS Issues.	Multiple data	Part 75 applied
	2015,12 03	Non-Resp	onsive	N/A	2.79	Non-Responsive Non-Responsive	WA				
	2015 12.04	Non-Poer	oneivo	5,65	2.87	Non-Responsive Non-Responsive	6.82				
	2015 12.05	Non-Resp	onoive	2.29	2.87	Non-Responsive	0.54				
	2015.12.06	Non-Resp	onsive	2.53	2.86	Non-Responsive	1.28		III		D-475 F- 1
	2015.12.07 2015.12.08	Non-Resp	onsive	2.50 2.15	2.87 2.85	Non-Responsive	0.81 1.84	Maltunction	Unsuccessful calibration - 2 hrs	Stack SO2	Part 75 applied
	2015.12.09	Non-Resp	onsive	3.27	2.88	Non-Responsive Non-Responsive	1.30			1	
	2015.12.10	Non-Resp	onsive	1.94	2.84	Non-Responsive Non-Responsive	1.61				
	2015,12 11	Non-Poor	oneivo	2.42	2.75	Non-Responsive	3.05				
165	2015.12.12	Non Design	onoive	1.98	2.70	Non-Responsive	0.80				
	2015.12.13	Non-Resp	onsive	2.85	2.69	Non-Responsive	1.28				
	2015, 12, 14	Non-Resp	onsive	3.27	2.76	Non-Responsive	2.87				
	2015.12.15	Non-Resp	onsive	2.31	2.82	Non-Responsive	2.42				
	2015.12.16 2015.12 17	Non-Resp	onsive	2.14 3.57	2.86	Non-Responsive Non-Responsive	3.87 4.34				
	2015.12.17	Non-Poor	oncive	2.01	2.88 2.88	Non-Responsive	6.84				
	2015.12.18	Non-Resp	Olisive	1.66	2.84	Non-Responsive	7.79				
	2015.12.20	Non-Resp	onsive	5.21	2.87	Non-Responsive	10.03				
	2015.12.21	Non-Resp	onsive	6.10	3.02	Non-Responsive	8.59	Malfunction	Unsuccessful calibration - 7 hrs	Stack SO2	Part 75 applied
175	2015,12.22	Non-Resp	onsive	2.27	2.94	Non-Responsive Non-Responsive	2.76				
	2015.12.23	Non-Resp	onsivo	1.96	2.82	Non-Responsive	3.84	Malfunction	Unsuccessful calibration - 7 hrs	Muttiple data	Part 75 applied
	2015.12.24	Mon Book	onoive	2.09	2.74	Non-Responsive	2.68				
	2015 12 25	Non-Resp	onsive	1.33	2.71	Non-Responsive	0.32				
	2015 12 26	Non-Resp	onsive	2.19	2.71	Non-Responsive	0.34	1 4 - 16 · · · · · · · · · · · · ·	A to a to a to a till a setting of the	01-11-000	0.25
	2015.12.27	Non-Resp	onsive	2.47	2.74	Non-Responsive Non-Responsive	1.18	Malfunction	Unsuccessful calibration - 1 Itr	Stack 502	Part 75 applied
	2015,12.28 2015 12.29	Non-Resp	onsive	4.58 1.72	2.79 2.75	Non-Responsive	0.64 1.37				
	2015 12.29	Mon Book	onoive	1.72	2.75	Non-Responsive	0.45				
	2015,12,31	Mon-Resp	onsive	0.24	2.69	Non-Responsive		Malfunction	Unsuccessful calibration - 7 hrs	Multiple data	Part 75 applied

Prepared by:	Duane Cannon	Date:	Jan 26, 2016	Page	10	of	15	
File name: JPA J	ul-Dec 2015 Semi-Annual Report.docx	Document number: JPA-ALL-GEN-SA-036						



Plant:									
Joppa, Illinois									
Revision:	0								

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Data collection period: Submittal date: 01 Jul 2015 - 31 Dec 2015 26 January 2016

Days in		Kiln (clinker)		ck NO <sub>x</sub>		k 50 <sub>2</sub>	1	Malfunction documentation		Data gap documentation
porting		production (*)	Mass (*)	Intensity	Mass (*)	Intensity	CEMS			
boined	Date	[ton/d]	b/d	[lb/ton KK]	[lb/d]		incident type	Explanation	Missing data	Explanation
1	2015,07.01	Non-Res	ponsiv	€N/A	Non-Responsiv	V/A	1 1		All data	Kiln was down
2	2015.07.02	Non-Res	ponsiv	eN/A	Non-Responsiv	N/A	1 1		All data	Klin was down
3	2015,07,03	Non Boc	nonciv	N/A	Non-Responsiv	WA	1 1		All data	Kiln was down
4	2015.07.04	MOII-Kes	housin	€N/A	Non-Responsiv	N/A	1 1		All data	Kiln was down
5	2015.07.05	Non-Res	ponsiv	eN/A	Non-Responsiv	N/A	1 1		All data	Kiln was down
6	2015.07.05	Non-Res	nonsiy	N/A	Non-Responsiv	N/A	1 1		All data	Kiln was down
7	2015 07.07	Non Dee	porisiv	N/A	Non-Responsiv	N/A	1 1		All data	Kiln was down
8	2015.07.08	Non-Res	ponsiv	€N/A	Non-Responsiv	WA	1 1		All data	Kiln was down
9	2015.07.09	Non-Res	ponsiv	N/A	Non-Responsiv	N/A	1 1		All data	Kiln was down
10	2015.07.10	Non Roo	ponoiv	N/A	Non-Responsiv	N/A	1 1		All data	Kiln was down
11	2015.07.11	Non-Res	ponsiv	€N/A	Non-Responsiv	N/A	1 1		All data	Kiln was down
12	2015.07.12	INon-Res	ponsiv	eN/A	Non-Responsiv	N/A	1 1		All data	Kiln was down
13	2015 07.13	Non-Pos	noneiv	N/A	Non-Responsiv	N/A	1 1		All data	Kiln was down
14	2015.07.14	MOLLEYES	housis	EN/A	Non-Responsiv	WA	1 1		All data	Kiln was down
15	2015.07.15	Non-Res	ponsiv	eN/A	Non-Responsiv	N/A	1 1		All data	Kiln was down
16	2015.07.16	Non-Res	nonsiy	N/A	Non-Responsiv	N/A	1 1		All data	Kiin was down
17	2015 07.17	Non Do	pondiv	N/A	Non-Responsiv	N/A	1 1		All data	Kiln was down
18	2015,07.18	NOH-KES	POUSIV	€N/A	Non-Responsiv	N/A N/A	1 1		All data	Kiln was down
19	2015.07.19	Non-Res	ponsiv	eN/A	Non-Responsiv		1 1		All data	Kiln was down
20	2015.07.20	Non Poc	nonciv	N/A	Non-Responsiv	N/A N/A	1 1		All data	Kiln was down
21	2015,07.21	MOII-Kes	housin	€N/A	Non-Responsiv		1 1		All data	Kiln was down
22	2015,07,22	Non-Res	ponsiv	e <sup>N/A</sup>	Non-Responsiv	N/A	1 1		All data	Kiln was down
23	2015.07.23	Non-Res	noneiv	N/A	Non-Responsiv	WA	1 1		All data	Kiln was down
24	2015.07.24	Non-Res	porisiv	EN/A	Non-Responsiv	N/A	1 1		All data	Kiln was down
25	2015 07.25	Non-Res	ponsiv	<b>e</b> ∨⁄A	Non-Responsiv	WA	1 1		All data	Klin was down
26	2015.07 26	Non-Res	ponsiv	N/A	Non-Responsiv	N/A	1 1		All data	Kiln was down
27	2015 07.27	Non Roo	ponoiv	N/A	Non-Responsiv	N/A	1 1		All data	Kiln was down
28	2015.07.28	Non-Res	ponsiv	●N/A	Non-Responsiv	N/A	1 1		All data	Kiln was down
29	2015.07.29	Non-Res	ponsiv	e WA	Non-Responsiv	WA.	1 1		All data	Kiln was down
30	2015,07.30	Non Poc	nonciv	N/A	Non-Responsiv	V/A	1 1		All data	Kiln was down
31	2015,07.31	MOII-KES	ponsiv	<b>E</b> √/A	Non-Responsiv	N/A	1 1		All data	Kiln was down
32	2015.08.01	Non-Res	ponsiv	eN/A	Non-Responsiv	WA.	1 1		All data	Kiln was down
33	2015.08.02	Non-Res	nonsiy	N/A	Non-Responsiv	N/A	1 1		All data	Kiln was down
34	2015,08.03	Non Dee	porisiv	N/A	Non-Responsiv	N/A			All data	Kiin was down
35	2015.08.04	Non-Res	ponsiv	€N/A	Non-Responsiv	N/A	1 1		All data	Kiln was down
36	2015.08.05	Non-Res	ponsiv	N/A	Non-Responsiv	N/A	1 1		All date	Kiln was down
37	2015.08.06	Non Roo	ponoiv	N/A	Non-Responsiv	WA.	1 1		All data	Kiln was down
38	2015 08 07	Mon-Kes	ponsiv	EN/A	Non-Responsiv	N/A			All data	Kiln was down
39	2015.08.08	Non-Res	ponsiv	3.03	Non-Responsiv	1.67			1	
40	2015 08.09	Non-Pos	noneiv	4.97	Non-Responsiv	0.58			1	
41	2015.08.10	NOITE	bougin	3.85	Non-Responsiv	2.65				
42	2015.08.11	Non-Res	ponsiv	3.68	Non-Responsiv	5.31				
43	2015.08.12	Non-Res	nonsiy	3.71	Non-Responsiv	1.28				
44	2015,08.13	Non Des	pondiv	2.86	Non-Responsiv	0.49				
45	2015.08.14	INOH-Kes	housiv	3.83	Non-Responsiv	1.36				
46	2015.08.15	Non-Res	ponsiv	3.06	Non-Responsiv	0.42				1
47	2015,08.16	Non-Pos	noneiv	2.36	Non-Responsiv	0.49				1
48	2015,08.17	14011-1762	housin	2.30	Non-Responsiv	0.29			1	
49	2015.08,18	Non-Res	ponsiv	e 1.81	Non-Responsiv	0.08				I .
50	2015.08 19	Non-Ros	noneiv	2.28	Non-Responsiv	0.10				
51	2015,08.20	Mon D	POLISIV	2.99	Non-Responsiv	0.25				
52	2015.08.21	Non-Res	ponsiv	2.42	Non-Responsiv	0.28				
53	2015,08.22	Non-Res	nonsiy	1.88	Non-Responsiv	0.12				
54	2015 08.23	Non Dec	porioiv	1.51	Non-Responsiv	0.05				
55	2015.08.24	Inou-Kes	ponsiv	1.01	Non-Responsiv	0.05				
56	2015.08.25	Non-Res	ponsiv	1.77	Non-Responsiv	0.11				
57	2015.08.26	Non Ros	nonoiv	1.62	Non-Responsiv	0.05				
58	2015,08.27	NOH-KES	POUSIV	2.08	Non-Responsiv	0.12				L
59	2015,08,28	Non-Res	ponsiv	1.08	Non-Responsiv	0.05				
60	2015.08.29	Non Pos	nonciv	1.61	Non-Responsiv	0.30				
61	2015.08 30	14011-1762	housin	1.51	Non-Responsiv	0.37				
62	2015 08.31	Mon-Res	nonsiv	1.45	Non-Responsiv	0.67	1			

Prepared by:	Duane Cannon	Date:	Jan 26, 2016	Page	11	of	15
File name: JPA J	ul-Dec 2015 Semi-Annual Report.doc	Document number: JPA-ALL-GEN-SA-036					



Plant:							
Joppa, Illinois							
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U.S. EPA Consent Decree Semi-Annual Report CEMS Data

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Data collection period: Submittal date:

File name: JPA Jul-Dec 2015 Semi-Annual Report.docx

01 Jul 2015 - 31 Dec 2015 26 January 2016

ys in		Kiln (clinker)	Stack	NO.	Stack	SO <sub>2</sub>		Malfunction documentation		Data ann decumentation
orting		production (*)	Mass (*)	Intensity	Mass (*)	Intensity	CEMS	Malfunction documentation		Data gap documentation
iod	Date	[ton/d]	[lb/d]	[lb/ton KK]	(Ib/dì	[lb/ton KK]	incident type	Explanation	Missing data	Explanation
63	2015.09.01	Non-Res	ponsive	1.43	Non-Responsive	0.07		3.4.0.0.0.0.0	.ansoning data	Explanation
64	2015.09.02	Non-Res	ponsive	1.17	Non-Responsive	0.12				
65	2015.09.03	Non Pos	noncivo	2.04	Non-Responsive	0.31				
66	2015 09.04	Non-Res	ponsive	3.92	Non-Responsive Non-Responsive	0.15		I.		1
67 68	2015,09 05 2015.09 06	Non-Res	ponsive	3.60	Non-Responsive	0.39				1
69	2015.09.00	Non-Res	ponsive	3.90 4.41	Non-Responsive	2.52		1		1
70	2015.09.08	Non-Res	ponsive	3.56	Non-Responsive	0.13 0.10		1		
71	2015.09.09	Non-Res	nonsive	3,31	Non-Responsive Non-Responsive	0.16		1		II.
72	2015.09.10	Non Roo	ponsivo	3.62	Non-Responsive	0.23		1	1	1
73	2015.09.11	Non-Res	ponsive	3.65	Non-Responsive	0.12		1		1)
74	2015.09.12	Non-Res	ponsive	2.89	Non-Responsive	0.03				1
75	2015.09.13	Non-Res	ponsive	3.94	Non-Responsive	0.08			1	
76 77	2015.09.14	Non-Res	ponsive	3.47	Non-Responsive Non-Responsive	0.08				I .
78	2015.09 15 2015.09.16	Non-Res	nonsive	4.55	Non-Responsive	0.14				
79	2015.09.16	Non Pos	noncive	4.42 3.10	Non-Responsive	0.61 0.14				
	2015.09.18	Non-Res	ponsive	3.10	Non-Responsive	0.14				
	2015.09.19	Non-Res	ponsive	3.70	Non-Responsive Non-Responsive	0.33			4	
82	2015.09.20	Non-Res	ponsive	3.23	Non-Responsive Non-Responsive	0.07			1	
83	2015.09 21	Non-Res	ponsive	4.44	Non-Responsive	0.13				
	2015.09.22	Non-Res	ponsive	4.58	Non-Responsive	0.15				I .
	2015.09 23 2015.09 24	Non-Ros	noneivo	3.06	Non-Responsive	0.24				
	2015.09.24	Non-Res	ponsive	2.32	Non-Responsive Non-Responsive	0.11			1	
	2015.09.25	Non-Res	ponsive	3.06 3.58	Non-Responsive	0.59 0.68		l.		
	2015.09,27	Non-Res	ponsive	6.01	Non-Responsive	1.35				
	2015.09.28	Non-Res	ponsive	3.91	Non-Responsive	1.14				
	2015,09.29	Non-Res	nonsive	4.42	Non-Responsive Non-Responsive	0.62				
	2015.09.30	Non-Pos	poneivo	3.08	Non-Responsive	0.54				
	2015 10 01	Non-Res	ponsive	N/A	Non-Responsive	N/A			All data	Kiln was down
	2015.10.02	Non-Res	ponsive	N/A	Non-Responsive	N/A			All date	Klin was down
	2015,10.03	Non-Res	ponsive	N/A	Non-Responsive Non-Responsive	V/A			Ali data	Kiin was down
	2015.10.04	Non-Res	ponsive	N/A	Non-Responsive Non-Responsive	N/A N/A			All data	Kiln was down
	2015.10.05	Non-Res	ponsive	V/A		WA WA		3	All data	Kiln was down
	2015.10.07	Non-Pos	poneivo	WA AW		V/A			All data	Kiln was down Kiln was down
100	2015.10 08	Non-Res	ponsive	N/A		V/A			All data	Kiln was down
	2015 10.09	Non-Res	bousive	2.04	Non-Responsive Non-Responsive	1.42			The data	The state of the s
	2015.10.10	Non-Res	ponsive	3.60	Non-Responsive Non-Responsive	0.32	Malfunction	Unsuccessful calibration - 3 hrs	Multiple data	Part 75 applied
	2015.10.11	Non-Res	ponsive	3.34	Non-Responsive	1.97				
	2015.10.12	Non-Res	ponsive	4.53	Non-Responsive	2,93 0.38				1
	2015.10.13	Non-Res	nonsive	4.78 3.81	Non-Responsive	0.38				1
	2015.10.15	Non-Pos	noncivo	3.88	Non-Responsive Non-Responsive	0.16			1	
108	2015 10.16	Non-Res	ponsive	4.42	Non-Responsive	0.26				
	2015.10.17	Non-Res	ponsive	4.16	Non-Responsive	0.36				
	2015.10.18	Non-Res	ponsive	4.70	Non-Responsive	0.60				
	2015.10.19	Non-Res	ponsive	6.72	Non-Responsive	0.45	1	8	1	
	2015.10.20 2015.10.21	Non-Res	nonsive	3.09	Non-Responsive Non-Responsive	0.31				
	2015.10.21	Non Pos	noneivo	4.14 4.87	Non-Responsive	0.34 0.54				
	2015 10.23	Non-Res	ponsive	3.53	Non-Responsive	0.54				
	2015,10.24	Non-Res	ponsive	4.63	Non-Responsive	0.69				
117	2015.10.25	Non-Res	ponsive	4.87	Non-Responsive Non-Responsive	0.19				
	2015.10.26	Non-Res	ponsive	4.70	Non-Responsive	1.18			1	
	2015.10.27	Non-Res	nonsive	4.02	Non-Responsive	0.30				
	2015 10.28	Non Pos	noncivo	3.68	Non-Responsive	0.39				
	2015.10.29	Non-Res	ponsive	5.08	Non-Responsive Non-Responsive	0.56				
	2015.10.30	Non-Res	ponsive	6.33	Non-Responsive	0.79				1
	2015.10.31 2015.11.01	Non-Res	ponsive	3.66 4.52	Non-Responsive	0.34 0.34				
124 ]	2013.11.01			4.52	ivon-Responsive	0.34			1	I.

Document number: JPA-ALL-GEN-SA-036



Plant:
Joppa, Illinois
Revision: 0

U.S. EPA Consent Decree Semi-Annual Report CEMS Data

Prepared by:

Duane Cannon

File name: JPA Jul-Dec 2015 Semi-Annual Report.docx

Contains Confidential Business Information

K2

Data collection period: Submittal date:

01 Jul 2015 - 31 Dec 2015 26 January 2016

(\*) CONFIDENTIAL BUSINESS INFORMATION

Days in		Kiln (clinker)	Stack	NO I	Stack	90.		Malfunction documentation		Data and the same of the same
reporting		production (*)	Mass (*)	Intensity	Mass (*)	Intensity	CEMS	Manufiction documentation		Data gap documentation
period	Date	[ton/d]	[lb/d]	[lb/ton KK]	[lb/d]		incident type	Explanation	Missing data	Explanation
125	2015.11.02	Non-Res	sponsive	3.35	Non-Responsive	0.06				
126	2015.11.03	Non-Res	enoneive	4.24	Non-Responsive	0.56	1			
127	2015.11 04	Non-Res	porisive	3.91	Non-Responsive	0.20				
128	2015.11 05	Non-Res	sponsive	3.34	Non-Responsive Non-Responsive	0.05	Malfunction	Unsuccessful calibration - 2 hrs	Stack SO2	Part 75 applied
129 130	2015,11 06	Non-Res	sponsive	2.76	Non-Responsive Non-Responsive	0.13				
131	2015.11.07	Non-Res	ponsive	4.89 3.85	Non-Responsive	0.22				
132	2015.11.00	Non-Res	enoneive	3.73	Non-Responsive	0.03 0.07				
133	2015.11.10	Non-Res	porisive	3.96	Non-Responsive Non-Responsive	0.55				
134	2015.11.11	Non-Res	sponsive	3.70	Non-Responsive Non-Responsive	0.21				
135	2015 11.12	Non-Res	sponsive	4.98	Non-Responsive	0.49				
136	2015.11.13	Non-Res	ponsive	4.51	Non-Responsive	0.13				
137	2015.11.14	Non-Res	enoneive	4.02	Non-Responsive Non-Responsive	0.14				
138	2015,11.15	Non-Res	ponsive	2.69	Non-Responsive Non-Responsive	0.11				Į.
139	2015.11.16	Non-Res	sponsive	3,48	Non-Responsive	0.99				1
140	2015.11.17	Non-Res	sponsive	3.64	Non-Responsive	0.75	Malfunction	Unsuccessful calibration - 8 hrs	Multiple data	Part 75 applied
141	2015.11.18	Non-Res	ponsive	3.47	Non-Responsive	0.19				
142 143	2015.11.19	Non-Res	sponsive	4.58 6.91	Non-Responsive Non-Responsive	0.68 1.41				
144	2015.11.21	Non Pos	poncive	6.02	Non-Responsive Non-Responsive	0.11				
145	2015.11.22	Non-Res	phoneine	1.78	Non-Responsive	0.03	Mattunction	Unsuccessful calibration - 17 hrs	Multiple data	Part 75 applied
146	2015.11.23	Non-Res	sponsive	5.11	Non-Responsive	0.40	TOTAL COLUMN	Chiscostal dallaration (11 th)	widthpic data	T an 75 applied
147	2015.11.24	Non-Res	sponsive	5.22	Non-Responsive Non-Responsive	1.03	Malfunction	Unsuccessful calibration - 2 hrs	Multiple data	Part 75 applied
148	2015.11 25	Non-Res	sponsive	5.00	Non-Responsive Non-Responsive	2.90				
149	2015.11.26	Non Res	sponsivo	3.40	Non-Responsive	0.38				
150	2015.11.27	Non-Res	sponsive	3.78	Non-Responsive	0.81				
151	2015.11.28	Non-Res	sponsive	4.73	Non-Responsive Non-Responsive	0.40				
152	2015.11.29	Non-Res	sponsive	2.01	Non-Responsive Non-Responsive	0.31			1	i e
153 154	2015.11.30	Non-Res	nonsive	8.07	Non-Responsive	0.77				
155	2015,12.01	Non Ros	ponsivo	4.31 3.65	Non-Responsive	0.83 0.94	Matfunction	DAS Issues	A.S. Minla data	2-175
156	2015 12.03	Non-Res	ponsive	3.83	Non-Responsive Non-Responsive	2.35	IVIAIIOIICIIOII	DAS ISSUES	Multiple data	Parl 75 applied
157	2015,12.04	Non-Res	sponsive	4.33	Non-Responsive Non-Responsive	0.33				
158	2015.12 05	Non-Res	sponsive	4.06	Non-Responsive	0.17	Maltunction	Unsuccessful calibration - 13 hrs	Stack SO2	Part 75 applied
159	2015.12.06	Non-Res	nonsive	3.16	Non-Responsive	0.31				
160	2015.12.07	Non Boo	poncivo	4.39	Non-Responsive	0.69				
161	2015,12.08	Non-Res	phoneine	2.47	Non-Responsive Non-Responsive	0.13	Malrunction	Unsuccessful calibration - 5 hrs	Multiple data	Part 75 applied
162	2015,12.09	Non-Res	sponsive	3.35	Non-Responsive Non-Responsive	2.16				
163	2015.12.10	Non-Res	sponsive	3.61	Non-Responsive	0.81				
164 165	2015.12.11	Non-Res	ponsive	3.71	Non-Responsive	0.32 N/A			Attacher	127
166	2015.12.12	Non-Ros	enoneivo	WA AVA		N/A N/A			All data	Kiln was down Kiln was down
167	2015.12.14	Non Des	porisive	WA		N/A			All data	Kiln was down
168	2015 12.15	Non-Kes	sponsive	WA I	Non-Responsive	N/A			All data	Kiln was down
169	2015.12.16	Non-Res	sponsive	W/A	Non-Responsive	N/A			All data	Kiln was down
170	2015.12.17	Non-Res	ponsive	N/A		N/A			All data	Kiln was down
171	20 15.12.18	Non-Res	enonsive	N/A		N/A			All data	Kiln was down
172	2015.12.19	Non Des	porisive.	N/A		N/A			All data	Kiln was down
173	2015.12.20	Non-Kes	sponsive	N/A	Mon Boonopolivo	WA			All data	Kīln was down
174	2015.72.21	Non-Res	sponsive	N/A	Non-Responsive	WA			All data	Kıln was down
175	20 15,12 22	Non-Res		V/A	Non-Responsive Non-Responsive	WA			All data	Klin was down
176	2015,12 23	Non-Ros	enoneivo	V/A		WA	İ		All data	Kiln was down
177 178	2015.12.24	Non Des	porisive	N/A N/A	Non-Responsive	N/A N/A			All data	Klin was down
179	2015.12,25	Non-Res	sponsive	V/A	Non-Responsive	V/A			All data	Kiln was down
	2015 12 27	Non-Res		WA		WA VA			All data	Kiln was down
181	2015.12 28	Non-Res	ponsive	V/A	Non-Responsive	WA			All data	Kiln was down Kiln was down
182	2015.12.29	Non-Pos	poneivo	WA	Non-Responsive	WA			All data	Kiln was down
183	2015.12,30	14011-1762		WA.		WA	- 1		All data	Kiin was down
184	2015.12.31			V/A		V/A			All data	Kiln was down

Date:

Jan 26, 2016

Page

Document number: JPA-ALL-GEN-SA-036

13

15



Plant:									
Joppa, Illinois									
Revision:	0								

Appendix B: Facility-wide 12-month rolling tonnage calculations

Pre pared by:	Duane Cannon	Date:	Jan 26, 2016	Page	14	of	15	
File name: JPA Jul-Dec 2015 Semi-Annual Report.docx			Document number: JPA-ALL-GEN-SA-036					



Plant: Joppa, Illinois 0 Revision:

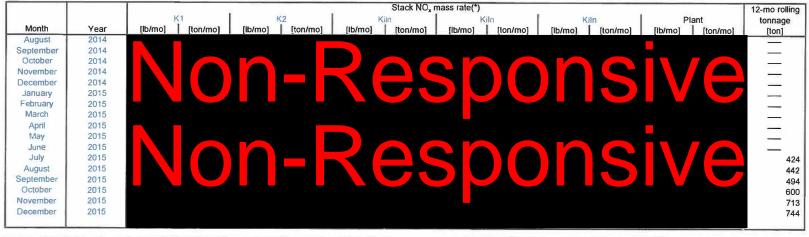
U.S. EPA Consent Decree 12-Month Rolling Tonnage

Facility-wide (all kilns)

Data collection period: 01 Jul 2015 Submittal date:

to 31 Dec 2015 26 January 2016

(\*) CONFIDENTIAL BUSINESS INFORMATION



							Stack SO <sub>2</sub>	mass rate(*)						12-mo rolling
		K1		K2	I	Kili	1	K	iiln	f 1	Kiln	į P	lant	tonnage
Month	Year	[lb/mo]	[ton/mo]	[lb/mo]	[ton/mo]	[lb/mo]	[ton/mo]	[lb/mo]	[ton/mol	[lb/mo]	[ton/mo]	lb mol	Iton/mol	[ton]
August	2014													-
September	2014													<del></del> -
October	2014													
November	2014													_
December	2014													
January	2015													
February	2015													
March	2015													
April	2015													
May	2015													_
June	2015													
July	2015													339
August	2015													313
September	2015													271
October	2015													270
November	2015													265
December	2015													258

**END OF REPORT** 

Prepared by:	Duane Cannon	Date:	Jan 26, 2015	Page	15	of	15		
File name: JPA Jul-Dec 2015 Semi-Annual Report.docx			Document number: JPA-ALL-GEN-SA-036						